IN THE SPECIFICATION

Paragraphs [0001] – [0126] are in this application.
Paragraphs [0076], [0077], [0079], [0081], [0089], [0096], and [0108], Previously presented, were amended in the previous amendment
Paragraphs [0087] and [0089] are currently amended.
All other paragraphs are Original as originally filed but not reproduced in this Amendment.

[0076] (Previously presented) In an embodiment, liquid cooling system 300 represents an application of the present invention in larger data processing systems, such as personal computers or server equipment. Heat exchange system 310 comprises a coolant ~~cavity~~ reservoir 314 and a heat exchange system 330 coupled together by liquid conduit 328. Liquid cooling system 300 further comprises conduit 308, which couples coolant ~~cavity~~ reservoir 314 to transfer system 304. Liquid cooling system 300 further comprises conduit 306, which couples heat exchange system 310 to the heat transfer system 304. Conduit 308 transports cooled liquid 320 from coolant ~~cavity~~ reservoir 314 to the heat transfer system 304. Liquid conduit 306 receives and transfers heated liquid from the heat transfer system 304 to heat exchange system 310. Conduit 328 transports cooled liquid from heat exchange system 330 back to coolant ~~cavity~~ reservoir 314. Conduits 306, 308, and 328 may comprise a number of suitable rigid, semi-rigid, or flexible materials (e.g., copper tubing, metallic flex tubing, or plastic tubing) depending upon desired cost and performance characteristics. Conduits 306, 308, and 328 may be inter-coupled or joined with other system components using any appropriate permanent or temporary contrivances (e.g., such as soldering, adhesives, or mechanical clamps).

[0077] (Previously presented) Coolant ~~cavity~~ reservoir 314 receives and stores cooled liquid 320 from conduit 328. Cooled liquid 320 is a non-corrosive, low-toxicity liquid, resilient and resistant to chemical breakdown after repeated usage while providing efficient heat transfer and protection against corrosion. Depending upon particular cost and design criteria, a number of

gases and liquids may be utilized in accordance with the present invention (e.g., propylene glycol). Coolant ~~cavity~~ reservoir 314 is a sealed structure appropriately adapted to house conduits 328 and 308. Coolant ~~cavity~~ reservoir 314 is also adapted to house a pump assembly 316. Pump assembly 316 may comprise a pump motor 312 disposed upon an upper surface of coolant ~~cavity~~ reservoir 314 and an impeller assembly 324 which extends from the pump motor 312 to the bottom portion of coolant ~~cavity~~ reservoir 314 and into cooled liquid 320 stored therein. The portion of delivery conduit 308 within coolant ~~cavity~~ reservoir 314 and pump assembly 316 are adapted to pump cooled liquid 320 from coolant 314 ~~cavity~~ reservoir into and along conduit 308. In one embodiment, pump assembly 316 includes a motor 312, a shaft 322 and an impeller 324. Conduit 308 may be directly coupled to pump assembly 316 to satisfy this relationship or conduit 308 may be disposed proximal to impeller assembly 324 such that the desired pumping is effected.

[0079] (Previously presented) Fig. 4A displays a system view of a liquid cooling system suitable for use in a mobile computing environment, such as a laptop, and implemented in accordance with the teachings of the present invention. The material, selection, and scale of the elements of liquid cooling system 400 are adjusted according to the particular cost size and performance criteria of the particular application. A heat transfer system is shown as 420. ~~, such as the heat transfer system shown as 800 in Figs. 8A and 8B, which both include a housing 802 and a motor deployed in the housing 802, such as motor 806.~~ The heat transfer system 420 is coupled to the heat exchange system 406 by conduits 402 and 418.

[0081] (Previously presented) Heat transfer system 420 includes a cavity (not shown in Fig. 4A). Heat transfer system 420 receives ~~and stores~~ cooled liquid from conduit 418. The cooled liquid is a non-corrosive, low-toxicity liquid, resilient and resistant to chemical breakdown after repeated usage while providing efficient heat transfer. Depending upon particular cost and design criteria, a number of gases and liquids may be utilized in accordance with the present invention (e.g., propylene glycol).

[0087] (Currently amended) A motor 512 is also positioned in the heat exchange system 504. The motor 512 and the cavity 514 form a sealed cavity for ~~seal that retains~~ liquid 518 ~~in the cavity 514.~~ The motor 512 is connected to an impeller 516, which is deployed in the cavity 514. In one embodiment, the motor 512 in combination with the impeller 516 is considered a pump. In another embodiment, the impeller 516 is considered a pump. Conduit 510 brings cooled liquid into the cavity 514 and conduit 520 removes the cooled liquid ~~air~~ from the cavity 514.

[0089] (Currently amended) Cavity 514, which acts as a reservoir, receives and stores cooled liquid. Liquid 518 is a non-corrosive, low-toxicity liquid, resilient and resistant to chemical breakdown after repeated usage while providing efficient heat transfer and corrosion prevention. Depending upon particular cost and design criteria, a number of gases and liquids may be utilized in accordance with the present invention (e.g., propylene glycol). Cavity 514 is a sealed structure appropriately adapted to house conduits 510 and 520.

[0096] (Previously presented) In one embodiment, the first electron conducting material 602 and the second electron conducting material 604 are configured so that when current is applied to the first electron conducting material 602 and the second electron conducting material 604, the first electron conducting material 602 and the second electron conducting material 604 experience the peltier effect. In another embodiment, the electron conducting materials 602 and 604 may be implemented to form a thermoelectric cooler, a peltier cooler, a solid-state refrigerator, a solid-state heat pump, a micro cooler, etc., or function as a thermoelectric system.

[0108] (Previously presented) Cooled liquid shown by directional arrows 730 and 732 enters conduits 724 and 728 through inlet 720. As the cooled liquids 730 and 732 are transported in conduits 724 and 728, the cooled liquids 730 and 732 dissipate heat from the hot regions 706 and 710. For example, as cooled liquid 730 is conveyed in conduit 724, the heat generated in hot region 706 is lowered and hot region 706 becomes cooler. In addition, the cooled liquid 730 becomes heated liquid and heated liquid is output from the outlet 722. As the cooled liquid 732 is conveyed in conduit 728, the heat generated in hot region 710 is lowered and hot region 710

becomes cooler. In addition, the cooled liquid 732 becomes heated liquid and heated liquid is the output from the outlet 722.